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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/274,953	03/23/1999	ITZIK BEN-BASSAT	3055.00068	9162
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BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			HUYNH, SON P	
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DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/274,953	Applicant(s) BEN-BASSAT ET AL.	
	Examiner Son P. Huynh	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 7-9 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 7-9 and 24-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/3/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 3, 2006 have been fully considered but they are not persuasive.

Applicant argues the examiner also recognized that Naiff does not disclose a transmitter from the card to the satellite. Rather the examiner proposes that a satellite receiver "inherently" includes a transmitter. The Office Action cites no support for such a novel proposition and indeed none can be found (page 6, lines 5-8).

In response, the examiner respectfully disagrees with applicant's argument that the examiner recognized that Naiff does not disclose a transmitter from the card to the satellite. The examiner recognized the satellite receiver inherently includes a transmitter for transmitting data from the card to an earth orbiting station (see Office Action dated 07/01/2005, last line to page 4, line 1; page 6, lines 17-18). In deed, Naiff discloses television service provider communicates with a card provided in user equipment via satellite receiver and cable 16, which connected between satellite receiver and the card in user equipment (figure 4). Communication with the television service provider can be accommodated by an RF return path (cable 16 – col. 6, lines 29-33). Thus, the satellite receiver must comprise a transmitter to transmit data in return RF signal from the card to the satellite for relaying to the television service provider.

Applicant further argues, “The Office Action also states that Naiff includes a “upconverter and a power amplifier” for transmitting data, but cites no support in Naiff or anywhere else for such a proposition” (page 6, lines 10-15).

In response, this argument is respectfully traversed. In the Office Action regarding rejection of claims 24-26, the Examiner states Naiff **does not** specifically disclose the satellite receiver is a VSAT comprises an upconverter and a power amplifier for transmitting data to an earth-orbiting satellite. The Examiner relies on Kukhari for teaching of VSAT comprising an upconverter and a power amplifier for transmission data to an earth orbiting satellite. Specifically, Bukhari discloses a connector, which a DC source from IDU (24) powers the VSAT out door unit (ODU – col. 1, lines 6-22; col. 2, lines 14-35; col. 3, lines 42-48), wherein the VSAT comprising an upconverter (frequency multiplier circuit 34) and a power amplifier (36) for transmitting data to an earth orbiting satellite (figure 2, col. 3, line 50-col. 4, line 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff’s system to use the teaching as taught by Bukhari in order to reduce power consumption; and furthermore, to reduce the cost of the system.

In response to Application’s further argument of none of the cited references disclose a remotely located upconverter and power amplifier from the PC (page 6, last two lines of paragraph 1 to line 2 of paragraph 2), the examiner respectfully disagree and points out that Bukhari discloses a remotely located upconverter (interpreted as frequency

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multiplier circuit 34) and power amplifier (36) from the PC (e.g. indoor unit – figures 1-2) as discussed above.

Applicant additionally argues “if the system of Naiff were connected to the IDU 24 as suggested in Bukhari, at least a short circuit would result if not complete destruction of the MUX/DMUX (modem) 28 of Bukhari. Thus, the combination hypnotized by the Office Action would not work if combined in the manner suggested and is missing elements even if it could be combined.” (page 6, paragraph 2).

In response, this argument is respectfully traversed. Naiff discloses a card plugged in user equipment (i.e. PC) for data communication between the user equipment and satellite receiver (figures 3-4; col. 6, lines 29-33). Kukhari, in an analogous art, discloses modulated data from user equipment (including IDU 24) is transmitted to the VSAT (ODU 22 and satellite receiver 20), the VSAT further processed the multiplexed signal for transmitting to satellite. The VSAT comprises upconverter (frequency multiplier circuit 34) and amplifier 36 for transmitting the signal to the satellite (figure 2). The Mux/Dmux 28 is used to further process the data received from user equipment before transmitting to the satellite, therefore, there is no need to short circuit or complete destruction of the MUX/DMUX (modem 28) of Bukhari. Therefore, the combination of Naiff and Bukhari is proper.

For the reasons discussed above. Rejections on claims 2-4,7-9,24-30 are analyzed as discussed below.

Claims 1, 5-6, 10-23 have been canceled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 30 is rejected under 35 U.S.C. 102(e) as being anticipated by Bukhari (US 6,763,222).

Regarding claim 30, “the method of powering an upconverter and a power amplifier in a two way satellite system using a power supply in a personal computer coupled to the two-way satellite system through a connector” as claimed is broadly met by Bukhari’s disclosure since Bukhari discloses powering an upconverter (frequency multiplier circuit 34) and power amplifier (36) of ODU in a two way satellite system using power supply in a personal computer (user equipment includes IDU) coupled to the two way satellite system (ODU and dish) through a connector (e.g. cable 26 – see including, but is not limited to, figure 2, col. 3, lines 16-68) .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 24, 2-4, 7, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) in view of Bukhari (US 6,763,222).

Regarding claim 24, Naiff teaches a card (40 –figure 3) for communicating to and from a personal computer (20-figure 4) to external network, comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3);

radio frequency modulator circuitry on the circuit board, which receives the data and transmits radio frequency signals responsive thereto (television interface (card 40) includes means for modulating the television signals on a carrier for output to the television appliance on a standard television channel frequency – col. 2, line 66-col. 3, line 5; the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple

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antenna. The card further receives data from user and transmits the data to the television service provider via coaxial cable 16 in RF return path (col. 6, lines 29-32; which connected to a satellite receiver (figures 3-4; col. 5, line 10 – col. 6, line 37, figure 4). Inherently, the satellite receiver must includes a transmitter for transmitting data in RF return path from the card to an earth orbiting satellite so that the data in RF return path is received by television service provider via the satellite. However, Naiff does not specifically disclose a connector, which a DC source external to the card powers the satellite receiver, wherein the satellite is a very small aperture terminal (VSAT) comprising an upconverter and a power amplifier for transmitting data to an earth-orbiting satellite.

Bukhari, in analogous art, discloses a connector, which a DC source from IDU (24) powers the VSAT out door unit (ODU – col. 1, lines 6-22; col. 2, lines 14-35; col. 3, lines 42-48), wherein the VSAT (ODU and the dish) comprising an upconverter (frequency multiplier circuit 34) and a power amplifier (36) for transmitting data to an earth orbiting satellite (figure 2, col. 3, line 50-col. 4, line 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff's system to use the teaching as taught by Bukhari in order to reduce power consumption; and furthermore, to reduce the cost of the system.

Regarding claim 2, Naiff in view of Bukhari teaches a method as discussed in the rejection of claim 24. Naiff further discloses the peripheral card comprises components such as a tuner with associated television signal processing circuit which tunes to

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requested channel based on the signal input from the remote control, the selected channel is accessed by access control circuitry; audio/video decompression circuitry; video and audio multiplexers; upconverter for outputting RF signal to user's television (see col. 5, lines 49-60). In addition, Naiff discloses the telephone return port 64 of peripheral card 40 communicates to service provider using RF return path (see col. 8, lines 6-13) and peripheral card 40 communicates to the television using RF signal transmission (see col. 9, lines 19-42). It is obvious that the radio frequency modulation circuit comprises frequency synthesizer generating the radio frequency signals for transmitting between devices and external networks to improve efficiency in data transmission.

Regarding claim 3, Naiff in view of Bukhari teaches a method as discussed in the rejection of claim 2. Naiff further discloses application software in the PC controls various functions of the television interface card 40 via bus control 86; the application software also used to tune channels requested by a user via the remote control 26 (see col. 6, lines 57-63 and figure 3). Necessarily, the frequency generated by the frequency synthesizer is set by a controller on the circuit board.

Regarding claim 4, Naiff in view of Bukhari teaches a method as discussed in the rejection of claim 2. Naiff further discloses the application software control various functions of the television interface card 40 via bus controller 86 (see col. 6, lines 57-63

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and figure 3). Necessarily, the frequency generated by the frequency synthesizer is set by conveying instructions via the computer bus.

Regarding claim 7, Naiff in view of Bukhari teaches a card as discussed in the rejection of claim 24. Naiff further discloses the application software in the PC controls the various functions of the television interface card 40, including generation of electronic program displays from data provided by the television system operator. It would have been obvious to one of ordinary skill in the art to modulate the transmitted signals according to a predetermined protocol in order to improve efficiency in data processing.

Regarding claim 26, Naiff teaches a card (40 –figure 3) for communicating to and from a personal computer (20-figure 4) to external network, comprising:

a circuit board which plugs into the personal computer and which is coupled to exchange data via an industry-standard bus (PCI) in the personal computer (see figure 3);

radio frequency modulator circuitry on the circuit board, which receives the data and transmits radio frequency signals responsive thereto (television interface (card 40) includes means for modulating the television signals on a carrier for output to the television appliance on a standard television channel frequency – col. 2, line 66-col. 3, line 5; the card 40 receives data from television service provider, processes and transmits the television signal to television via transceiver on the card and simple antenna. The card further receives data from user and transmits the data to the

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television service provider via coaxial cable 16 in RF return path (col. 6, lines 29-32; which connected to a satellite receiver (figures 3-4; col. 5, line 10 – col. 6, line 37, figure 4). Inherently, the satellite receiver must includes a transmitter for transmitting data in RF return path from the card to an earth orbiting satellite so that the data in RF return path is received by television service provider via the satellite. However, Naiff does not specifically disclose the satellite is a very small aperture terminal (VSAT) comprising an upconverter and a power amplifier for transmitting data to an earth-orbiting satellite.

Bukhari discloses a VSAT (ODU 22 and dish) comprising an upconverter (frequency multiplier circuit 34) and a power amplifier (36) for transmitting data to an earth orbiting satellite (figure 2, col. 3, line 50-col. 4, line 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff's system to use the teaching as taught by Bukhari in order to reduce power consumption; and furthermore, to reduce the cost of the satellite transceiver.

Regarding claims 27-29, the additional limitations as claimed correspond to the additional limitations as claimed in claims 2-4, respectively, and are analyzed as discussed with respect to the rejections of claims 2-4.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) and Bukhari (US 6,763,222) as applied to claim 24 above, and in view of Bock et al. (US 5,953,418).

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Regarding claim 8, Naiff in view of Bukhari teaches a card as discussed in the rejection of claim 24. However, neither Naiff nor Bukhari specifically discloses the modulation circuitry comprises an encoder, which encodes error correction into the transmitted signals according to a predetermined protocol in accordance with a command conveyed to the card via the industry standard bus.

Bock et al. discloses signal processor 68 in transmitter card 62 comprises encoder (error correction 92) that encodes error correction into the transmitted signals (see figure 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Bukhari to use the teaching as taught by Block in order to allow the receiver to correct transmission errors.

7. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naiff (US 5,982,363) and Bukhari (US 6,763,222), and further in view of Goldman et al. (US 5,592,366).

Regarding claim 9, Naiff in view of Bukhari teaches a card as discussed in the rejection of claim 24. However, neither Naiff nor Bukhari specifically discloses the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus.

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Goldman et al. discloses the card comprises an auxiliary connector through which the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus (see col. 4, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Bukhari to use the teaching as taught by Goldman et al. in order to update the system easily, and furthermore, to allow the card communicates directly to the other cards thereby increase efficiency of the system.

Regarding claim 25, Naiff discloses a television interface peripheral card for communicating to and from a personal computer through a satellite (figures 3-4). The card receives data from external network via satellite receiver, processes the data and provides to the television device. The card further receives data from television device, processes data, and provides and data via cable 16 to satellite receiver for providing to the television service provider (figures 3-4, col. 5, lines 30-65; col. 6, lines 30-67). Naiff further discloses the card is plugged into a computer to exchange data via an industrial bus (via PCI interface 94-figure 3). Necessarily, the device comprises a transmitter card and receiver card which plug into computer to exchange data between satellite receiver and personal computer. Naiff further discloses the card further receives data from user and transmits the data to the television service provider via coaxial cable 16 in RF return path (col. 6, lines 29-32; which connected to a satellite receiver (figures 3-4; col. 5, line 10 – col. 6, line 37, figure 4). Inherently, the satellite receiver must includes a transmitter for transmitting data in RF return path from the card to an earth orbiting

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satellite so that the data in RF return path is received by television service provider via the satellite). However, Naiff does not specifically disclose the satellite receiver is a VSAT comprises an upconverter and a power amplifier; an auxiliary bus connecting between the transmitter card and receiver card.

Bukhari discloses a VSAT comprising an upconverter (frequency multiplier circuit 34) and a power amplifier (36) for transmitting data to an earth orbiting satellite (figure 2, col. 3, line 50-col. 4, line 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff's system to use the teaching as taught by Bukhari in order to reduce power consumption; and furthermore, to reduce the cost of the satellite transceiver. However, neither Naiff nor Bukhari specifically disclose an auxiliary bus connecting between the transmitter card and receiver card.

Goldman et al. discloses the card comprises an auxiliary connector through which the card is coupled to at least one other card located in the computer such that signals pass between the cards without passing through the industry standard bus (see col. 4, lines 51-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naiff and Bukhari to use the teaching as taught by Goldman et al. in order to update the system easily, and furthermore, to allow the card communicates directly to the other cards thereby increase efficiency of the system

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hladik et al. (US 5,734,962) discloses satellite communication system utilizing parallel concatenated coding.

Jackson et al. (US 6,366,620) discloses VSAT system.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00 - 6:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPH
March 7, 2006



HAITRAN
PRIMARY EXAMINER